Calaveras County
Air Pollution Control District

891 Mountain Ranch Road, San Andreas, CA 95249
(209) 754-6399 FAX (209) 754-6722

CALAVERAS COUNTY
AIR POLLUTION CONTROL DISTRICT

Ozone Emergency Episode Plan

PREPARED IN COMPLIANCE WITH
THE FEDERAL CLEAN AIR ACT

July 2019

Purpose

This Ozone Emergency Episode Plan provides the basis for taking action to prevent ambient ozone concentrations from reaching levels which could endanger public health, or to abate such concentrations should they occur. It identifies criteria for the four levels of emergency episodes, components for public announcements whenever an episode has been identified, and specifies emission control strategies to be taken with each episode.

Legal Authority

The Federal Clean Air Act (CAA)[1] gives the U.S. Environmental Protection Agency (U.S. EPA) the legal authority to halt the emission of air pollutants causing or contributing to the injury of the public or their welfare. The U.S. EPA is further authorized to either bring a lawsuit in federal court or, if such civil action cannot assure prompt protection of public health or welfare, to issue such orders as may be necessary to protect public health, welfare, or the environment. The authority granted to the U.S. EPA Administrator is vested in the California Air Resources Board (CARB) and the air districts under the California Health & Safety Code (H&SC)[2]. This section of California law applies to a range of emissions violations and imposes penalties that are equivalent to or exceed federal penalties for comparable violations. These penalties include the imposition of fines and/or imprisonment.

Commented [XJ1]: Please replace all ARB with CARB. We changed to CARB as of this year.

Commented [DC2R1]: Done.

Under the authority of the H&SC, the CARB is responsible for controlling emissions from mobile sources, while districts are responsible for controlling emissions from non-mobile sources. H&SC Section 41700 states that sources are prohibited from emitting any pollutant(s) that can cause injury, detriment, nuisance, or annoyance to the public, or that endanger the comfort, repose, health, or safety of the public. Furthermore, H&SC Section 42450, et seq., gives districts specific authority to abate emissions from any source violating H&SC Section 41700 or any other order, rule, or regulation that prohibits or limits the discharge of pollutants, consistent with applicable notice and hearing requirements. Under H&SC Section 41509, ~~the~~ CARB or other local agency rules cannot infringe upon a district's authority to declare, prohibit, or abate a nuisance, and California's Attorney General is authorized to enjoin any pollution or nuisance, either on his or her own, or by request.

In addition to the authority under H&SC, the local air districts can work with the local governing body of a city, county, or city and county, pursuant to the California Emergency Services Act[3], to proclaim a local emergency when there are conditions of disaster or of

[1] Federal Clean Air Act Section 110(a)(2)(G)
[2] California Health & Safety Code Section 42400 et seq.
[3] California Emergency Services Act, California Government Code Section 8550-8668

extreme peril to the safety of persons and property within the territorial limits of a city, county, or both a city and county, caused by such conditions as air pollution[4]. When a local emergency is declared, cities and counties shall implement their emergency plans and take actions to mitigate or reduce the emergency threat. Actions may include deploying field-level emergency response personnel such as law enforcement, activating emergency operation centers, and issuing orders to protect the public. Through a local emergency declaration, the air districts will obtain law enforcement aids from local governing bodies to accomplish necessary actions for preventing ambient ozone concentration from reaching the harmful level.

Requirement of a Plan for the Prevention of Air Pollution Emergency Episodes

Under the Code of Federal Regulations (CFR)[5], areas that have hourly ozone concentrations above 0.10 parts per million (ppm) are classified as Priority I Regions and are required to develop a contingency plan which must, at a minimum, provide for taking action necessary to prevent ambient ozone concentrations at any location in such region from reaching the significant harm level of 0.60 ppm, averaged over two hours. As set forth in CFR, three trigger levels (stages) are established for the ozone pollution episodes: Alert level (0.2 ppm), Warning level (0.4-0.5 ppm), and Emergency level (0.5 ppm)[6]. Corresponding actions for each specified trigger level would be identified and will be implemented when the ambient ozone hourly concentration measurements reach the specified trigger levels. These elements and actions should provide for rapid short-term emission reductions at each trigger level, to avoid high ozone concentrations from reaching significant harm levels during an episode.

Commented [XJ3]: EPA has advised the prior sentence is incorrect, as attainment has no bearing on this requirement even though this had been accepted in some prior plans. CARB suggests using the new sentence.

Commented [DC4R3]: Done.

Commented [SP5]: This number is actually not from the CFR, which uses 0.4 as an example warning level. Of course, it's fine to use a lower level- just flagging this because the sentence cites the CFR.

Development of the Ozone Emergency Episode Plan for Calaveras County

Calaveras County is classified as non-attainment for the 2015 federal ozone eight-hour average standard. Since Calaveras County has had more than one day with the maximum one-hour concentration greater than 0.10 ppm between 2015 and 2017, the Calaveras County Air Pollution Control District (CCAPCD) is required to prepare an ozone emergency episode plan (Plan).

Developing a response plan to increasing ozone levels is highly dependent on the source of the ozone. The Final EPA Technical Support Document including Calaveras County [HYPERLINK "https://www.epa.gov/sites/production/files/2018-05/documents/ca_tsd_combined_final_0.pdf"] uses a 5 point analysis to evaluate the ozone sources in counties. For Calaveras County, following is a summary of those factors.

Factor 1: Air Quality Data

[4] California Government Code Section 8558 (c).
[5] 40 CFR 51.150 and 51.151
[6] 40 CFR 51 Appendix L

Calaveras County was designated as a nonattainment area for ozone in 2008 and again in 2017 for the 2015 NAAQS standard based on data collected from the only official monitor in the county located near Gold Strike High School in San Andreas. The 2015 Federal NAAQS (National Ambient Air Quality Standard) for ozone is 0.070 ppm. The EPA defines a 'design value' (DV) as the 3 year rolling average of the highest 4 highest daily readings and compares that to the NAAQS for determining attainment compliance. Calaveras County's design value is calculated as 0.076 ppm and therefore in nonattainment. However, for purposes of requiring an ozone response plan, any hourly value over 0.10 ppm triggers the requirement.

Commented [SP6]: This is the 2014-2016 design value from the EPA TSD. The 2018 design value, which is the most recent, would be better to use. It's 0.077 ppm, per AQS AMP480 generated on 7 August 2019.

Table 1 shows the top three maximum hourly concentrations at the Calaveras County ozone monitoring site from 2015 through 2018. During this time, the maximum ozone one-hour concentration for all of those years was 0.111 ppm. 2015 had two days with one hour exceeding 0.10 ppm. 2016 had no days, 2017 and 2018 each had one day with one hour exceeding 0.10 ppm. A value of 0.146 ppm in 1995 was the highest ever recorded maximum hourly concentration since data collection started in 1994.

Commented [SP7]: 2017 had three days with one-hour maximum values over 0.10 ppm: (September 1, 2017 at 15:00, 16:00, and 17:00 hours), per AQS AMP350 raw data report generated on 7 August 2019.

Table 1
Calaveras County Ozone Monitoring Site – Gold Strike
Top Three Maximum one-hour Concentrations

		2015	2016	2017	2018
Max Conc.	Max	0.111	0.094	0.109	0.105
	2nd Max	0.106	0.093	0.091	0.096
	3rd Max	0.093	0.091	0.089	0.094

*Data downloaded from CARB's Aerometric Data and Management (ADAM) system on 7/8/19

Factor 2: Emissions and Emissions Related Data

Ozone is not measured directly when determining emissions. The ozone precursor gases – Nox (Oxides of Nitrogen) and VOC (Volatile Organic Gases) – are reported instead. The EPA reviewed data from the 2014 National Emissions Inventory (NEI). For each county in the area of analysis, the EPA examined the magnitude of large sources (defined as NOx or VOC emissions greater than 100 tons per year) and the magnitude of county-level emissions reported in the NEI. These county-level emissions represent the sum of emissions from the

following general source categories: point sources, non-point (i.e., area) sources, non-road mobile, on-road mobile, and fires. ~~Emissions levels from sources in a nearby area indicate the potential for the area to contribute to monitored violations.~~ Calaveras County has no sources that come under the EPA definition of large sources for NOx or VOC. Due to the rural nature of the county, there are no NOx or VOC stationary sources that emit over 25 tpy.

~~The EPA's analysis of relevant county-level emissions and the geographic locations of the relevant emission showed that Calaveras County has calculated emissions levels of 1,011 Tons Per Year (tpy) of NOx and 4,299 tpy of VOC within the area of analysis. Calaveras County does not contain any large point sources. Three large point sources of ozone precursors are located outside of the intended nonattainment area boundary for Calaveras County in the neighboring counties of Amador County to the north and Tuolumne County to the south.~~ CARB maintains an emissions inventory and uses that to make projections regarding emissions in future years. For the baseline year of 2012, NOx emissions were 2.8 tons per day (tpd) and ROG (Reactive Organic Gases) were 5.1 tpd. The 2020 emissions projection is 1.8 tpd for NOx and 4.5 tpd for ROG. This represents a decrease of 35% and 10%, respectively. Table 2 lists stationary, areawide, and mobile source values for the 2020 projection.

Table 2

STATIONARY SOURCES	TOG	ROG	CO	NOX	SOX	PM	PM10	PM2.5	NH3
FUEL COMBUSTION	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	-
WASTE DISPOSAL	-	-	-	-	-	-	-	-	0.0
CLEANING AND SURFACE COATINGS	0.1	0.1	-	-	-	-	-	-	-
PETROLEUM PRODUCTION AND MARKETING	0.1	0.1	-	-	-	-	-	-	-
INDUSTRIAL PROCESSES	0.0	0.0	-	-	-	0.2	0.1	0.0	-
* TOTAL STATIONARY SOURCES	0.2	0.2	0.0	0.1	0.0	0.2	0.1	0.0	0.0
AREAWIDE SOURCES	TOG	ROG	CO	NOX	SOX	PM	PM10	PM2.5	NH3
SOLVENT EVAPORATION	1.3	1.3	-	-	-	-	-	-	0.0
MISCELLANEOUS PROCESSES	7.2	1.4	7.7	0.2	0.0	5.8	3.6	1.2	0.8
* TOTAL AREAWIDE SOURCES	8.6	2.7	7.7	0.2	0.0	5.8	3.6	1.2	0.9
MOBILE SOURCES	TOG	ROG	CO	NOX	SOX	PM	PM10	PM2.5	NH3
ON-ROAD MOTOR VEHICLES	0.6	0.5	3.3	1.0	0.0	0.1	0.1	0.0	0.0
OTHER MOBILE SOURCES	1.3	1.1	6.3	0.5	-	0.1	0.1	0.1	0.0
* TOTAL MOBILE SOURCES	1.9	1.7	9.6	1.5	0.0	0.2	0.1	0.1	0.0
GRAND TOTAL FOR CALAVERAS COUNTY APCD	10.7	4.5	17.4	1.8	0.0	6.1	3.9	1.3	0.9

The data in Table 2 is presented in the following charts. The majority of stationary source emissions come from facilities that are permitted by the district, and stationary sources are a small percentage of the total amount of emissions.

Commented [XJ8]: How much did each source category contribute to the total NOx and VOC emissions? Please add a table or a pie chart to show the relative importance of each source category.

Commented [DC9R8]: Done.

Commented [XJ10]: I understand that there is no "large point sources" in the Calaveras County, but I think it will be nice to still have a table showing the top (5?) VOC and NOx emission facilities even though their emission numbers are low.

Commented [DC11R10]: I don't have that data. It appears the other counties I've checked are using CEIDARS as their source for emissions data. We only have one entry in CEIDARS. If you can provide a source for facility emissions data, I'd be happy to add a table.

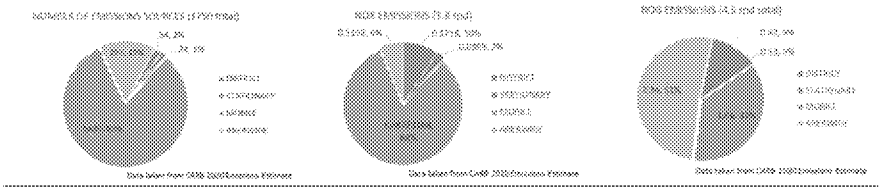
Commented [SP12]: Add title/units?

Normally we see tons per year, so just wondering if these tons per day are the tpy/365 or if they are only for the summer season.

We also normally see emissions inventory information based on past years- is the 2020 projection more relevant here? And is it very different from past years?

Also, if it's possible to make the pie charts bigger, that would be great.

Formatted: Centered



Population and Traffic

Calaveras County had a 2015 population of approximately 45,000 people, with a 2% population decline during the 2010-2015 period. Calaveras County has no discrete population centers and the population density reflects that the county is generally rural. The western portion of Calaveras County, where the violating monitor is located, is more populated than the eastern portion of the county. The EPA evaluated the commuting patterns of residents, as well as the total vehicle miles traveled (VMT) for Calaveras County. In 2014, there were a total of 366 million VMT by 20,989 workers of which 4,953 (23.6%) commute.

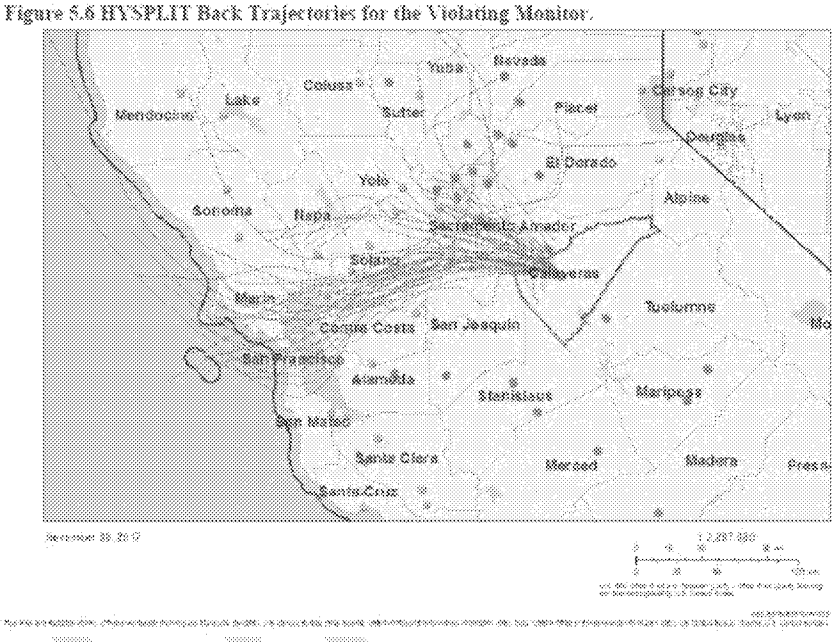
Factor 3: Meteorology

Evaluation of meteorological data helps to assess the fate and transport of emissions contributing to ozone concentrations and to identify areas potentially contributing to the monitored violations. In order to determine how meteorological conditions, including, but not limited to, weather, transport patterns, and stagnation conditions, could affect the fate and transport of ozone and precursor emissions from sources in the area, the EPA evaluated 2014-2016 HYSPLIT (HYbrid Single-Particle Lagrangian Integrated Trajectory) trajectories at 100, 500, and 1000 meters above ground level (AGL) that illustrate the three-dimensional paths traveled by air parcels to the violating monitor. Figure 5.6 shows the 24-hour HYSPLIT back trajectories for each exceedance day (i.e., daily maximum 8 hour values that exceed the 2015 ozone NAAQS) for the violating monitor.

The HYSPLIT back-trajectories include altitudes of 100 (red lines), 500 (green lines), and 1000 (blue lines) meters above ground level, respectively. Trajectories extend back in time 24 hours from 6 p.m. on the day of the exceedance. The EPA's intended nonattainment boundary for Calaveras County, CA is shown as a gray line with a dashed black center. Monitors are shown as red (violating), green (attaining), or yellow (invalid) dots based on

2014-2016 design values. Tribal land boundaries are outlined in green. The EPA's HYSPLIT analysis shows back trajectories for days exceeding the 2015 ozone NAAQS in 2014-2016 and generally flow from the west and northwest, suggesting emission transport primarily from the Sacramento and northern San Joaquin Valley areas and then through the western portion of Amador County. This is consistent with local topography.

Figure 1



Factor 4: Geography/Topography

Calaveras County is in the foothills and mountains of the Sierra Nevada mountain range. Elevations increase from about 200 feet (61 meters) above mean sea level in the west to over 8,000 feet (2400 meters) in the east. North-south flow between Amador and Calaveras counties is possible as there are fewer barriers to this transport pattern due to the weaker topographic relief in the western parts of both counties. Air flow in the west-east direction is relatively unimpeded along the area's river valleys, which extend well east into the interior of the county. Eastward transport of pollutants from the more urbanized areas to the west

such as the Sacramento Metro and northern San Joaquin Valley areas is thus possible during conditions of upslope flow. Conversely, westward transport of locally-generated pollution is possible during nighttime downslope flow. Neighboring San Joaquin and Sacramento valleys can have temperature inversions from 2,000 to 2,500 feet (600 to 750 meters) above the valley floor to as high as 5,000 feet (1,500 meters). Ozone produced in the Sacramento and northern San Joaquin Valley and trapped under this inversion can reach fairly high into the mountain counties, or be advected there by daytime upslope flows. Previous assessments of transport by the California Air Resources Board have found a strong potential for ozone transport from the Sacramento and San Joaquin valleys up into the mountain counties. Nighttime drainage flows reverse this, so some of this pollution, in combination with pollution generated in the mountain counties themselves, could be transported back into the valleys, with the potential for some carryover into subsequent days.

Factor 5: Jurisdictional Boundaries

Once the geographic extent of the violating area and the nearby area contributing to violations is determined, the EPA considered existing jurisdictional boundaries for the purposes of providing a clearly defined legal boundary to carry out the air quality planning and enforcement functions for nonattainment areas. The county to the immediate south of Calaveras County is Tuolumne County which is part of the Sonora CBSA (Core Based Statistical Area). To the west is the Stockton-Lodi CBSA, the easternmost portion of the San Jose-San Francisco-Oakland CSA (Combined Statistical Area), and the Modesto CBSA, part of the Modesto-Merced CSA. As previously noted, to the north is Amador County which is not part of a CSA or CBSA, and to the east is Alpine County which also is not part of a CSA or CBSA.

Conclusions for Ozone Sources within Calaveras County

The air quality monitor in Calaveras County indicates a violation of the 2015 ozone NAAQS based on the 2016 design value, therefore the EPA intends to include this county in the designated nonattainment area. Emissions and emission-related data show that Calaveras County has no large point sources, but some non-point sources (e.g., vehicles) from commuters within and outside the county. Meteorological data indicate the winds transporting ozone and ozone precursors during exceedance days are predominately from the west-northwest, suggesting emissions transport from the intended Sacramento Metro nonattainment area, and the northern portions of the intended San Joaquin Valley nonattainment area and also from Amador County. The complex topography and unimpeded air flow along the river valleys in Amador County may influence the fate and transport of emissions as well as the formation and distribution of higher ozone concentrations in this area. (This analysis taken from the EPA Technical Support Document and edited for clarity and brevity.)

Ozone Trigger Levels

Health Advisory Level

The CCAPCD proposes 0.15 ppm as a Health Advisory level to initiate emergency actions. The Health Advisory level (0.15 ppm) is lower than the Alert level (0.2 ppm), which is the lowest of three trigger levels required by the CFR. Table 32 includes the data for Calaveras County from 1994 – 2017. Table 32 includes the annual maximum one-hour ozone concentration in ppm, the annual maximum 8 hour average in ppm, the days that exceed the current NAAQS, and the annual Design Value (D.V.) measured in Calaveras County since 1994, when air monitoring began. Figure 32 (next page) presents the same data in chart form and also contains a black line showing the proposed Health Advisory level at 0.15 ppm and a yellow trend line.

Table ~~2~~ 3

Commented [XJ13]: I replaced Table 2 and Figure 2 with National Statistics since the EEP is part of the i-SIP for the U.S. EPA.

Commented [DC14R13]: Thank you!

Commented [SP15]: FYI, the old Table 3 is still on p. 12. There might be other more table number references to update throughout the document.

Trends Summary: National Ozone Statistics

in Calaveras County

Year	Days/Max Days > Std 8-Hour Stds 0.070	0.075	0.08	1-Hour Observations Max.	EENED* 1-Yr	3-Yr	D.V.*	8-Hour Averages 0.070 Std Max.	D.V.*	0.075 Std Max.	D.V.*	Year Coverage Range
2018	[illegible]	[illegible]	[illegible]	0.103	0.0	0.0	0.095	[illegible]	[illegible]	[illegible]	[illegible]	100 - 100
2017	[illegible]	[illegible]	[illegible]	0.109	0.0	0.0	0.095	[illegible]	[illegible]	[illegible]	[illegible]	97 - 97
2016	[illegible]	[illegible]	[illegible]	0.094	0.0	0.0	0.094	[illegible]	[illegible]	[illegible]	[illegible]	100 - 100
2015	[illegible]	[illegible]	[illegible]	0.117	0.0	0.0	0.093	[illegible]	[illegible]	[illegible]	0.073	100 - 100
2014	[illegible]	[illegible]	[illegible]	0.088	0.0	0.0	0.095	[illegible]	[illegible]	0.075	0.071	97 - 97
2013	[illegible]	[illegible]	[illegible]	0.092	0.0	0.0	0.093	[illegible]	[illegible]	[illegible]	0.072	100 - 100
2012	[illegible]	[illegible]	[illegible]	0.097	0.0	0.0	0.095	[illegible]	[illegible]	[illegible]	[illegible]	100 - 100
2011	[illegible]	[illegible]	[illegible]	0.103	0.0	0.0	0.095	[illegible]	[illegible]	[illegible]	[illegible]	99 - 99
2010	[illegible]	[illegible]	[illegible]	0.097	0.0	0.0	0.110	[illegible]	[illegible]	[illegible]	[illegible]	100 - 100
2009	[illegible]	[illegible]	[illegible]	0.096	0.0	0.0	0.110	[illegible]	[illegible]	[illegible]	[illegible]	100 - 100
2008	[illegible]	[illegible]	[illegible]	0.113	0.0	0.7	0.115	[illegible]	[illegible]	[illegible]	[illegible]	99 - 99
2007	[illegible]	[illegible]	[illegible]	0.097	0.0	1.0	0.124	[illegible]	[illegible]	[illegible]	[illegible]	99 - 99
2006	[illegible]	[illegible]	[illegible]	[illegible]	0.0	1.0	0.124	[illegible]	[illegible]	[illegible]	[illegible]	100 - 100
2005	[illegible]	[illegible]	[illegible]	[illegible]	1.0	0.3	0.115	[illegible]	[illegible]	[illegible]	[illegible]	100 - 100
2004	[illegible]	[illegible]	[illegible]	0.111	0.0	0.3	0.115	[illegible]	[illegible]	[illegible]	[illegible]	100 - 100
2003	[illegible]	[illegible]	[illegible]	0.117	0.0	0.3	0.117	[illegible]	[illegible]	[illegible]	[illegible]	99 - 99
2002	[illegible]	[illegible]	[illegible]	[illegible]	1.0	0.7	0.117	[illegible]	[illegible]	[illegible]	[illegible]	100 - 100
2001	[illegible]	[illegible]	[illegible]	0.120	0.0	0.7	0.120	[illegible]	[illegible]	[illegible]	[illegible]	99 - 99
2000	[illegible]	[illegible]	[illegible]	[illegible]	1.7	1.0	0.124	[illegible]	[illegible]	[illegible]	[illegible]	93 - 93
1999	[illegible]	[illegible]	[illegible]	[illegible]	1.0	1.0	0.124	[illegible]	[illegible]	[illegible]	[illegible]	99 - 99
1998	[illegible]	[illegible]	[illegible]	[illegible]	1.0	1.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	99 - 99
1997	[illegible]	[illegible]	[illegible]	[illegible]	1.0	1.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	99 - 99
1996	[illegible]	[illegible]	[illegible]	[illegible]	1.3	1.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	99 - 99
1995	[illegible]	[illegible]	[illegible]	[illegible]	1.0	*	0.124	[illegible]	*	[illegible]	*	99 - 99
1994	[illegible]	[illegible]	[illegible]	0.127	0.0	*	0.124	[illegible]	*	[illegible]	*	100 - 100
Graph	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Figure 2

[EMBED Word.Document.12 \s]

Annual Maximum one-hour/8 hr Ozone Concentration in Calaveras County since 1994
*Data downloaded from CARB ADAM on 7/31/2019

Figure 2 shows that the 0.2 ppm level has never been approached and the 0.15 level has never been reached. The ozone concentration trend shows a generally consistent decrease over time. Figure 2 also shows that the maximum ozone one-hour concentration in Calaveras County has been substantially reduced and would need an unprecedented ozone concentration to trigger the Alert level, and therefore initiate the ozone emergency episode plan implementation.

Ozone concentrations in Calaveras County have been substantially reduced through the implementation of existing control regulations and programs. The CCAPCD believes that the development and implementation of control regulations and programs identified by the ozone State Implementation Plans (SIP) will ensure that the ozone one-hour maximum concentrations in Calaveras County will continue decreasing, and would not reach the proposed Healthy Advisory level of 0.15ppm.

In addition, the CCAPCD also regulates various types of open burning, including residential, land development, fire hazard reduction, vegetation management, prescribed fire, and agricultural burning. For the Mountain Counties Air Basin, the District works cooperatively with the CARB and neighboring counties on the daily burn day information. Through the existing burn programs, the CCAPCD works carefully to balance the public health impacts from air pollution, along with the open burning activities which exist in the county, especially since much of the county is considered a high fire hazard area.

In conclusion, the CCAPCD believes that the proposed Health Advisory level at 0.15 ppm will be an appropriate and logical condition, in addition to the required ozone emergency episode levels set forth in the CAA, to initiate and fulfill the air pollution emergency episode actions proposed by the Plan.

Emergency Episode Criteria

Table 43 summarizes the four emergency episode trigger levels proposed by the CCAPCD for the one-hour ozone concentration measurement in Calaveras County. The following section identifies the corresponding actions for each trigger level, when that one-hour ozone concentration is reached.

Table 43

Trigger Levels of Ozone Emergency Episodes in Calaveras County

	Health Advisory	Alert (Stage 1)	Warning (Stage 2)	Emergency (Stage 3)
Ozone (one-hour average)	0.15 ppm	0.20 ppm	0.35 ppm	0.50 ppm

Proposed Actions for Ozone Emergency Episodes:

The actions identified for each trigger level of the ozone emergency episodes include public notification and emissions mitigation for industrial and mobile sources. The purposes of these actions are 1) to provide notification to the public when atmospheric stagnation conditions would result in substantially high ozone concentration measurements, and 2) to reduce the ozone precursor emissions rapidly in order to lower the ozone concentration below the triggered emergency episode level.

Emergency Episode Declaration

Whenever the ozone one-hour concentration Calaveras County, reaches or is predicted to reach any of the episode trigger levels as shown in Table 3, the CCAPCD shall declare that an emergency episode is in effect in Calaveras County.

In addition, should the Air Pollution Control Officer (APCO) of a district adjacent to the CCAPCD declare a stage 1, 2, or 3 episode within that district and request assistance, the APCO of CCAPCD may implement measures as described in this Plan as if such episode level has been measured within the District.

Notification of an Emergency Episode

The CCAPCD shall establish and periodically update and review an emergency episode notification list (List). When any emergency episode is declared, the APCO shall ensure notification of the officials on the List. The List shall include, and is not limited to, the following public agencies and organizations:

1. California Air Resources Board,
2. The Calaveras County Executive Officer, the Calaveras County Sheriff's Office, fire chiefs, and any other public safety officers as deemed appropriate by the APCO,
3. The Calaveras County Health Officer,
4. The Calaveras County Office of Emergency Services,
5. The Calaveras County Office of Education Superintendent, school districts' superintendents , and private schools' principals,

6. All air pollution control districts within the Southern Mountain Counties as well as all upwind districts.
7. Major newspapers in daily circulation and major television and radio stations (including those who are part of the emergency broadcast system) broadcasting within Calaveras County for appropriate warning, notices, and advisories. This notification includes online services.
8. CCAPCD and/or County Staff who are responsible for public outreach.

Content of Notification

Notification of an emergency episode shall include information on the predicted or current episode level, the expected duration of the episode, the expected geographic boundaries of the affected area, a statement for the public on the health significance of the air quality during the episode, and the appropriate voluntary or mandatory control actions proposed for each episode level.

Termination of an Emergency Episode

The CCAPCD shall declare an episode as terminated when the one-hour ozone concentration measurements from the monitor within Calaveras County fall below the level of the Alert episode and the meteorological data indicates the ozone concentration is expected to continue decreasing.

Notification of the Termination of an Episode

Upon the declaration of the termination of an episode, the CCAPCD shall ensure notification of those agencies and organizations specified in the List.

Actions for Each Emergency Episode

When an emergency episode is declared, the CCAPCD shall implement the following control actions:

1. Health Advisory Episode:
   a) Prepare the emergency episode notification;
   b) Ensure notification of those public agencies and organizations identified in the List that a health advisory episode has been declared;
   c) Ensure the Calaveras County Office of Education Superintendent has been advised that sustained strenuous activities by students (for both public and private schools) lasting longer than one hour should be discontinued;
   d) In conjunction with the Calaveras County Office of Emergency Services, notify the news media to broadcast the appropriate warning to the public, which will

include a recommendation that the public curtail unnecessary motor vehicle operation;

e) ~~Work with~~Request ~~the industry to identify targeted~~industrial permitted facilities ~~with possible emission control actions~~ to reduce ~~the relative~~ emissions using any strategies identified in subsequent Stages which do not affect operations significantly; and

f) Coordinate with the Calaveras County Office of Emergency Services to ~~identify possible actions~~identify actions which ~~shall be taken~~residents can take when Calaveras County declares a local emergency for an air pollution emergency, which ~~might~~ include~~, for example,~~ ceasing painting, construction, lawn mowing, pesticide application, and charcoal grilling.

2. Alert (Stage 1) Episode:
   a) Prepare the emergency episode notification;
   b) Ensure notification of those public agencies and organizations identified in the List that an Alert episode has been declared;
   c) Request the Calaveras County Office of Education Superintendent contact the School Superintendents and coordinate with private schools, to suspend students' strenuous activities;
   d) Through the Calaveras County Office of Emergency Services, notify the news media to broadcast the appropriate warning to the public, which will include a request that the public to curtail any unnecessary motor vehicle operation;
   e) Request all industrial permitted facilities initiate specified emission control actions to reduce relative emissions. These actions include reduce or curtail production; allow workers to telecommute, and to recommend employees at government and private industries refrain from using their vehicles until the episode is terminated;~~Request facilities to initiate specified emission control actions to reduce relative emissions and to recommend employees refrain from using their vehicles until the episode is terminated;~~
   ~~e)~~ f) Conduct on-site inspection of targeted facilities to ascertain accomplishment of applicable emission control actions; and
   ~~f)~~ g) Prohibit all open burning, including agricultural burning, and incineration throughout the affected area, except in an emergency situation as provided for in Section 41862 of the H&SC.

3. Warning (Stage 2) Episode:
   In addition to the actions associated with the Stage 1 Alert episode, the following actions should be implemented in a Warning episode.

Commented [SP16]: Are there any strategies identified in the subsequent stages that don't affect operations significantly? It's just a little confusing.

For example, if this refers to the telework option from the Alert stage, it would be best to specify that. If it's something else, it would still be better to be explicit.

Commented [SP17]: Do any of the sources fall into the same categories as the ones in 40 CFR 51 Appendix L that have specific time limitations on them?

Either way, would it provide more clarity to facilities and the public to insert timeframes here?

Commented [XJ18]: EPA may request more specific information about the facilities and the emission control actions.

You may want to check out 40 CFR 51 Appendix L for more guidance: https://www.law.cornell.edu/cfr/text/40/appendix-L_to_part_51

Commented [DC19R18]: I've altered this to try and take into account the requests from the EPA. However, as I used Placer and Amador as a template and used their language exactly, I don't have an example to change to.

Commented [SP20R18]: Thanks, Doug! I understand. Appendix L is our best example.

a) Request that those agencies and organizations in the List, within the scope of their authority:
   i. Prohibit all types of open burning, including agricultural waste;
   ii. Close all non-essential public agency facilities, except emergency facilities and those facilities necessary in emergencies to protect national security or national defense; and
   iii. Request that employees of closed non-essential public agency facilities refrain from using vehicles until the episode is terminated.
b) Request closure of all public and private schools, colleges, and universities within Calaveras County;
c) Request permitted facilities to shut down;
~~c)~~d) Conduct on-site inspection of industrial permitted facilities to ascertain the accomplishment of applicable emission control actions;
~~d)~~c) Request that employees of facilities that do close refrain from using vehicles until the episode is terminated;
~~e)~~f) Request the suspension of all indoor and outdoor events at parks or recreational facilities open to the public;
~~f)~~g) Request the suspension of all scheduled athletic events; and
~~g)~~h) Request that the Calaveras County Executive Officer and Health Officer consider declaring a local emergency for air pollution and implement emergency control measures, pursuant to the California Emergency Services Act, when the ambient ozone concentration continues rising and reaches the level at 0.45 ppm.

4. Emergency (Stage 3) Episode:
   In addition to the actions associated with the Stage 2 Warning episode, the following actions should be implemented in the Emergency episode.
   a) Request that the Calaveras County Executive Officer declare a local emergency for air pollution and initiate its emergency operations plan;
   b) Request the media to broadcast to the public that a local emergency exists for air pollution, due to high ozone concentrations;
   c) Through the Calaveras County Office of Emergency Service operations, the following actions shall be conducted as necessary, but are not limited to:
      i. Close all government facilities which are not immediately necessary for public health and safety, national security or national defense;
      ii. Close all recreational facilities, including but not limited to those servicing boating and off-road vehicles;
      iii. Close all non-emergency commercial and industrial facilities;
      iv. Request implementation of emergency carpooling, or the use of mass transportation;

v. Request that the public use only mass transit; and
vi. Hospitals within the affected area shall be notified of the alert level to prepare for the possible increase in the number of patients seeking treatment.

d) Close principal streets, as deemed necessary by the Calaveras County Executive Officer, Health Officer, APCO, and local law enforcement agencies, in order to protect the health and welfare of the general public;
e) Request that the Calaveras County Office of Emergency Services engage with the State agency for necessary actions pursuant to the California Emergency Services Act, which includes prohibiting the use of all motor vehicles except for emergencies, or any other action deemed warranted;
f) Restrict all non-essential construction and painting; and
g) Restrict all lawn care and mowing activities and stop the use of lawn and garden chemicals.

The CCAPCD commits to implementing the proposed actions associated with each episode identified in this Plan. The implementation of the Plan shall prevent the ambient ozone concentration from reaching the harmful level at 0.60 ppm.